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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/649,499	08/28/2000	William F Jones	26242.00	8209

7590

07/01/2003

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PO Box 51295  
Knoxville, TN 37950-1295

EXAMINER

LU, TOM Y

ART UNIT

PAPER NUMBER

2621

DATE MAILED: 07/01/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/649,499	Applicant(s) JONES, WILLIAM F	
	Examiner Tom Y Lu	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 4 is/are rejected.
- 7) ☒ Claim(s) 2,3 and 5-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                            | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____   |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Horbaschek et al (U.S. Patent No. 4,937,848).

As applied to Claim 1, which is representative of Claim 4, Horbaschek discloses a first digital pipeline latch for receiving said data collected by said positron emission tomograph device (Horbaschek at column 3, lines 35-36, discloses position data is outputted from X-ray tube 1, and transmitted through a line 31 to a computer 11. The lines connected between numeral 13 and multipliers 14-17 inside computer 11 as shown in figure 1, are the claimed “digital pipeline latch”. X-ray tube 1 corresponds to the claimed “positron emission tomograph device”); a plurality of multipliers disposed in parallel, each of said plurality of multipliers for receiving and multiplying a portion of said data to generate a product simultaneous with each other of said plurality of multipliers (Multipliers 14-17 as shown in figure 1 receive data from first pipeline latch); a second digital pipeline latch for simultaneously receiving said product from each of said plurality of multipliers (the lines connected between multipliers and adders are the claimed “second digital pipeline latch”); a plurality of adders disposed in parallel, each of said plurality of adders for receiving and summing a plurality of said product from said plurality of multipliers (adders 20 and 21 sum up the outputs from multipliers 14-17); and a third digital pipeline latch

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for receiving data from said plurality of adders (lines between numeral 22-23 and the adders are the claimed "third digital pipeline latch"), said data being representative of a pair of transformed coordinate points from a primary coordinate system to a secondary coordinate system (data output from adders are  $A_h$  and  $A_v$ .  $A_h$  and  $A_v$  are in rectangular coordinate as described at column 4, lines 25-26, which is the claimed "secondary coordinate system". The input data is in polar coordinate as described at column 4, line 30, which is the claimed "primary coordinate system"); whereby as said data is input to said first digital pipeline latch, said product of said data from an immediately previous said event is input to said second digital pipeline latch and completely transformed data from a second immediately previous said data is input to said third digital pipeline latch, and whereby said event data is transformed from said primary coordinate system to said secondary coordinate system in real time (all process steps above are done within computer 11, therefore, the transformation from the primary coordinate system to the secondary coordinate system is done in real time).

***Allowable Subject Matter***

2. Claims 2-3 and 5-10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Reason for allowance:

- a. Claims 2 and 5 define equations used to produce transformed coordinates from the primary coordinate system to the secondary coordinate system are clearly not taught or suggested by the art of record.
- b. Claim 3 is dependent upon Claim 2.

- c. Claims 6-10 are dependent upon Claim 5.

***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

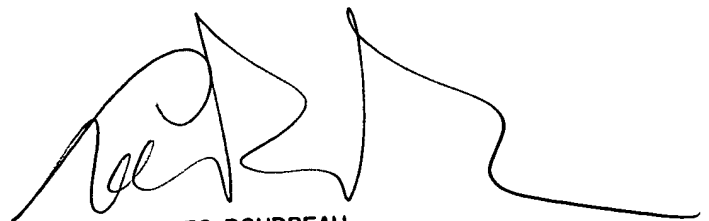
- a. Gullberg et al, U.S. Patent No. 5,565,684, see column 7, lines 42-62.
- b. Thiel et al, U.S. Patent No. 4,887,211, see figures 3-8.
- c. Walters, U.S. Patent No. 4,583,241, see figure 6.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Y Lu whose telephone number is (703) 306-4057. The examiner can normally be reached on 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo H Boudreau can be reached on (703) 305-4706. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Tom Y. Lu  
June 20, 2003



LEO BOUDREAU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600